

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of optically encoding data for transmission over a wavelength division multiplexed optical communications system comprising the steps of:

generating a periodic series of optical pulses defining a series of time slots, wherein one pulse appears in each time slot;

filtering the pulses to produce carrier pulses extending over more than one time slot; and

modulating the pulses with data for transmission[.];

wherein the filter gives rise to the pulses having a temporal profile with a minimum substantially in the center of each of the time slots adjacent to the time slot for that pulse.

2. (Cancelled)

3. (Currently Amended) A method according to claim 1 or 2, wherein the filtered carrier pulses have a substantially flat top spectral profile.

4. (Currently Amended) A method according to any preceding claim 1 or 2, wherein the filter is detuned to optimise transmission performance.

5. (Original) A method according to any preceding claim, wherein the step of modulating the pulses with data is performed before the filtering step.

6. (Currently Amended) A transmitter for producing an optical data signal for transmission over a wavelength division-multiplexed multiplexer optical communication system comprising:

means for producing a periodic series of optical pulses defining a series of time slots, wherein one pulse appears in each time slot;

a filter having a spectral profile giving rise to pulses with a temporal profile extending over more than one time slot[[; and]], the temporal profile having a minimum substantially in the center of each of the time slots adjacent to the time slot for that pulse; and

modulating means for modulating the pulses with data for transmission.

7. (Currently Amended) A transmitter according to either claim 5 or 6, wherein the filter has a substantially flat top spectral profile.

8. (Currently Amended) A transmitter according to either claim 5 or 6 or 7, wherein the filter is detuned to optimise transmission performance.

9. (Currently Amended) A transmitter according to claim [[8]]7, further comprising control means for optically detuning the optical filter in order to optimise transmission performance.